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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/776,676	02/06/2001	Kevin Guangjun Cai	600214-47US (32536)	2527

570 7590 03/31/2003

AKIN GUMP STRAUSS HAUER & FELD L.L.P.  
ONE COMMERCE SQUARE  
2005 MARKET STREET, SUITE 2200  
PHILADELPHIA, PA 19103-7013

EXAMINER

NGUYEN, CHAU N

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/776,676

Applicant(s)

CAI ET AL.

Examiner

Chau N Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 17.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. Claims 21, 25-27, 31 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuzuoka et al. (6,466,123) in view of Hawley (Condensed Chemical Dictionary).

Kuzuoka et al. discloses a cable comprising an outer metallic sheath (155, Fig. 1A), at least one metallic conductor therein, and a powdered filler (156) disposed between the outer sheath the conductor, wherein the filler comprises a mineral insulation consisting essentially of MgO (re claim 21). Kuzuoka et al. does not disclose the mineral insulation consisting essentially of MgO and kaolin. Hawley discloses kaolin is a known filler which is used as electrical insulators and absorbent for clarification of liquids. Accordingly, it would have been obvious to one skilled in the art to include kaolin in the mineral insulation of Kuzuoka et al. since kaolin is a known electrical insulation filler and capable of absorbing liquids as taught by Hawley.

Re claim 25, 27 and 31, Kuzuoka et al. discloses the outer sheath being drawn down. Re claim 26, it would have been obvious to one skilled in the art to mix MgO and kaolin before filling the mixture into the outer sheath of Kuzuoka et

al. to evenly provide kaolin in the space between the conductor and the sheath since mixing the components of the mixture before using the mixture is known in the art. Noted that the kaolin powder filling the cavities in the MgO is disclosed in the modified cable of Kuzuoka et al. (re claim 35).

2. Claims 22-24, 28-30 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuzuoka et al. in view of Hawley as applied to claims 21, 27 and 31 above, and further in view of Kataoka.

Claims 22-24, 28-30 and 32-34 additionally recite the amount of kaolin in the insulation, ranges of 3% to 20% or 3% to 15% or 5% to 10% by dry weight.

Kataoka et al. discloses a heat insulating material comprising kaolin in an amount of 5 to 50 wt.%. Noted that since kaolin in Kataoka et al. is in powder form, the weight percentage of kaolin used in Kataoka et al. is by dry weight.

It would have been obvious to one skilled in the art to use the kaolin amount taught by Kataoka et al. in the insulation of Kuzuoka et al. to form a heat insulating material.

***Response to Arguments***

3. Applicant's arguments with respect to claims 21, 25, 27 and 31 have been considered but are moot in view of the new ground(s) of rejection except for the following.

Applicant argues that Kataoka discloses kaolin being added into a polymer insulation. In response, Kataoka is used only to support the position of using a particular amount of kaolin in an insulating material to provide the material with a heat resistance. Therefore, Kataoka does not have to disclose kaolin being added in a mineral insulation.

***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 308-0693. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308 3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 1341 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Chau N Nguyen  
Primary Examiner  
Art Unit 2831

CN  
March 21, 2003